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NANO/MICROSATELLITE LAUNCH DEMAND ASSESSMENT: 2012 UPDATE

Abstract

Global interest in nano and microsatellites (under 100kg) is increasing. Many nanosatellites (under 10 kg) are used for educational purposes, and within the past few years nanosatellite applications have expanded to on-orbit technology demonstration/experimentation, telecommunications, and earth observation. SpaceWorks Commercial presents updates to its ongoing study of nano/microsatellite launch demand and future projections of such demand. The objective is to periodically present to the global community such projections of demand and relevant conclusions on the growth of this market. For this analysis, nano/microsatellites refer to those with payloads with masses between 1 kg and 100 kg. SpaceWorks Commercial has aggregated a database of known nano/microsatellites, both launched and planned, which is a subset of its overall Orbital Satellite Database (OSD). This includes all known nano/microsatellites between now and 2014. The current database contains over 200 known future nano/microsatellites. Using quantitative estimates as well as reasonable qualitative adjustments, SpaceWorks Commercial has projected global launch demand in the nano/microsatellite market according to a Gompertz logistic curve to 2020. The launch demand projection is based on publicly announced plans. Projections indicate a strong increase in nano/microsatellite launch demand. The nano/microsatellite market has grown considerably with the adoption of the CubeSat standard, technology development, entrance of new developers, and furthering of applications. Nano/Microsatellite launch demand has grown by an average of 5 percent per year since 2000, with an expected 20-25 percent growth per year over the next 3 years. In 2020 the global nano/microsatellite market may demand over 100 launches per year. The nano/microsatellite market is dominated by academic and non-U.S. satellites, but the military and civil markets are growing (especially in the U.S.).